

Amendments to the Claims

Kindly amend claims 1, 9, 30, 38 & 63 as set forth below, and cancel claims 4-8 & 33-37 (without prejudice). All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/double brackets (for deleted matter).

1. (Currently Amended) A computer-implemented method of monitoring jobs in a queue of a distributed system, said method comprising:

responsive to a request by a client monitor application for jobs information on computer jobs in a queue having a user selected state of execution, wherein computer jobs in the queue are in any one of a plurality of possible states of execution, collecting by a monitoring server application jobs information on a set of computer jobs in the queue of a distributed system having the user selected state, said jobs information comprising JobTracker information for the set of computer jobs, said JobTracker information including jobs data on each computer job of the set of computer jobs having the user selected, tracked job state and, for each job having said tracked job state, a time of entering the tracked job state; [[and]]

employing or displaying, by the client monitor application, said jobs information for the set of computer jobs in the queue having the user selected state;

wherein said jobs information comprises multiple characteristics, said multiple characteristics including said JobTracker information, and at least one of jobs data, filesystem information, cluster information and core files information, said jobs data comprising for each job in a queue at least some of job id, job owner, job starting time, job state, job priority, job class, and name of node where the job is running, said filesystem information including filesystem usage, said cluster information including for each node of said system, a name of the node, status of a scheduler, number of in-queue jobs, number of active jobs, average load, idle time, type of node architecture and operating system running on the node, and said core files information including a list of core files;

wherein said collecting jobs information further comprises:

reading a set of nodes of said system;

querying nodes of said set of nodes on said jobs information; and

retrieving from said system results of said querying;

wherein said reading comprises:

retrieving from said system a full set of nodes of said system; and

removing down nodes from said full set of nodes, wherein said
down nodes include nodes that fail to respond to operating system
commands within a predefined period of time;

wherein said querying comprises at least some of:

querying nodes in said set of nodes on jobs information;

querying nodes in said set of nodes on JobTracker information;

querying nodes in said set of nodes on filesystem information;

querying nodes in said set of nodes on cluster information; and

querying nodes in said set of nodes on core files information; and

wherein said querying nodes on JobTracker information comprises:

selecting said tracked job state from a predefined list of job states;

and

producing a list of jobs in a queue of said system having said
tracked job state.

2. (Canceled).

3. (Previously Presented) The method of claim 1, further comprising user selecting said tracked job state from a predefined list of job states, said predefined list comprising at least some states of “waiting”, “running”, “pending” and “held”.

4-8. (Canceled).

9. (Currently Amended) The method of claim [[8]] 1, wherein said producing a list of jobs comprises:

retrieving jobs information on at least one job in a queue and storing said jobs information into a list, wherein said jobs information includes a current timestamp and job state on said at least one job;

removing from said list jobs having a state different from said tracked job state; and

periodically updating said list by adding jobs that acquire said tracked job state after a most recent update of said list, and by removing from said list jobs that change job state after the most recent update of said list.

10. (Original) The method of claim 1, wherein said employing or displaying said jobs information comprises at least one of storing said jobs information, using said jobs information as an input of a computer program or a script, or presenting said jobs information in a single display window for viewing thereof.

11-29. (Canceled).

30. (Currently Amended) A computer-implemented monitor system for monitoring jobs in a queue of a distributed system, said monitor system comprising:

responsive to a request by a client monitor application for jobs information on computer jobs in a queue having a user selected state of execution, wherein computer jobs in the queue are in any one of a plurality of possible states of execution, means for collecting by a monitoring server application jobs information on a set of computer jobs in the queue of a distributed system having the user selected state, said jobs information comprising JobTracker information for the set of computer jobs, said JobTracker information including jobs data on each computer job of the set of computer jobs having the user selected, tracked job state and, for each job having said tracked job state, a time of entering the tracked job state; [[and]]

means for employing or displaying, by the client monitor application, said jobs information for the set of computer jobs in the queue having the user selected state;

wherein said jobs information comprises multiple characteristics, said multiple characteristics including said JobTracker information, and at least one of jobs data, filesystem information, cluster information and core files information, said jobs data comprising for each job in a queue at least some of job id, job owner, job starting time, job state, job priority, job class, and name of node where the job is running, said filesystem information including filesystem usage, said cluster information including for each node of said system, a name of the node, status of a scheduler, number of in-queue jobs, number of active jobs, average load, idle time, type of node architecture and operating system running on the node, and said core files information including a list of core files;

wherein said means for collecting jobs information further comprises:

means for reading a set of nodes of said system;

means for querying nodes of said set of nodes on said jobs information; and

means for retrieving from said system results of said means for querying;

wherein said means for reading comprises:

means for retrieving from said system a full set of nodes of said system; and

means for removing down nodes from said full set of nodes,

wherein said down nodes include nodes that fail to respond to operating system commands within a predefined period of time;

wherein said means for querying comprises at least some of:

means for querying nodes in said set of nodes on jobs information;

means for querying nodes in said set of nodes on JobTracker information;

means for querying nodes in said set of nodes on filesystem information;

means for querying nodes in said set of nodes on cluster information; and

means for querying nodes in said set of nodes on core files information; and

wherein said means for querying nodes on JobTracker information comprises:

means for selecting said tracked job state from a predefined list of job states; and

means for producing a list of jobs in a queue of said system having said tracked job state.

31. (Canceled).

32. (Previously Presented) The monitor system of claim 30, further comprising means for user selecting said tracked job state from a predefined list, said predefined list comprising at least some states of “waiting”, “running”, “pending” and “held”.

33-37. (Canceled).

38. (Currently Amended) The monitor system of claim [[37]] 30, wherein said means for producing a list of jobs comprises:

means for retrieving jobs information on at least one job in a queue and means for storing said jobs information into a list, wherein said jobs information includes a current timestamp and job state on said at least one job;

means for removing from said list jobs having a state different from said tracked job state; and

means for periodically updating said list by adding jobs that acquire said tracked job state after a most recent update of said list, and by removing from said list jobs that change job state after the most recent update of said list.

39. (Original) The monitor system of claim 30, wherein said means for employing or displaying said jobs information comprises at least one of means for storing said jobs information, means for using said jobs information as an input of a computer program or a script, or means for presenting said jobs information in a single display window for viewing thereof.

40-62. (Canceled).

63. (Currently Amended) At least one program storage device readable by a computer, tangibly embodying at least one program of instructions executable by the computer to perform a method of monitoring jobs in a queue of a distributed system, comprising:

responsive to a request by a client monitor application for jobs information on computer jobs in a queue having a user selected state of execution, wherein computer jobs in the queue are in any one of a plurality of possible states of execution, collecting by a monitoring server application jobs information on a set of computer jobs in the queue of a distributed system having the user selected state, said jobs information comprising JobTracker information for the set of computer jobs, said JobTracker information including jobs data on each computer job of the set of computer jobs having the user selected, tracked job state and, for each job having said tracked job state, a time of entering the tracked job state; [[and]]

employing or displaying, by the client monitor application, said jobs information for the set of computer jobs in the queue having the user selected state;

wherein said jobs information comprises multiple characteristics, said multiple characteristics including said JobTracker information, and at least one of jobs data, filesystem information, cluster information and core files information, said jobs data comprising for each job in a queue at least some of job id, job owner, job starting time, job state, job priority, job class, and name of node where the job is running, said filesystem information including filesystem usage, said cluster information including for each node of said system, a name of the node, status of a scheduler, number of in-queue jobs, number of active jobs, average

load, idle time, type of node architecture and operating system running on the node, and said core files information including a list of core files;

wherein said collecting jobs information further comprises:

reading a set of nodes of said system;

querying nodes of said set of nodes on said jobs information; and

retrieving from said system results of said querying;

wherein said reading comprises:

retrieving from said system a full set of nodes of said system; and

removing down nodes from said full set of nodes, wherein said down nodes include nodes that fail to respond to operating system commands within a predefined period of time;

wherein said querying comprises at least some of:

querying nodes in said set of nodes on jobs information;

querying nodes in said set of nodes on JobTracker information;

querying nodes in said set of nodes on filesystem information;

querying nodes in said set of nodes on cluster information; and

querying nodes in said set of nodes on core files information; and

wherein said querying nodes on JobTracker information comprises:

selecting said tracked job state from a predefined list of job states;

and

producing a list of jobs in a queue of said system having said tracked job state.

64-66. (Canceled).

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